Summer 2007

Vol. 16, Issue 3

Cancer Registry Review

"Cancer Registry Review "is
published by the Arizona Cancer Registry
for the information and education of Arizona Cancer Registrars

Bureau of Public Health Statistics
Arizona Cancer Registry

150 North 18th Avenue, Suite 550
Phoenix, Arizona 85007

Arizona Department of Health Services

Janet Napolitano, Governor

Susan Gerard, Director

ACR ANNOUNCEMENTS

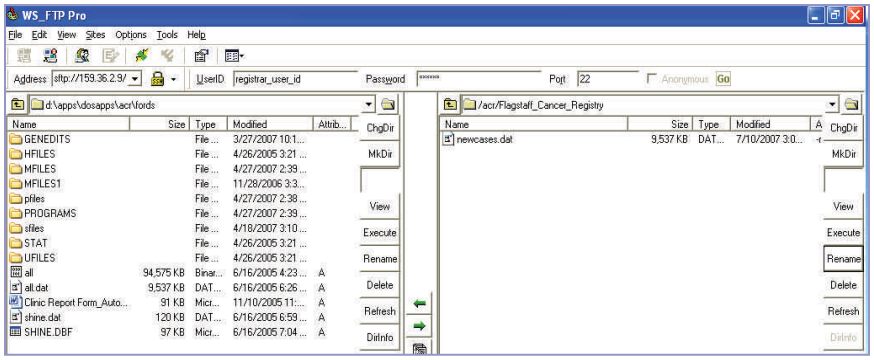
TIRED OF FLOPPY DISKETTES?

Keith Laubham, MS

Let's get on board with ADHS and exchange data quickly, easily and securely with the ACR's new secured FTP (file transfer protocol) site.

Using this site eliminates the need for floppy diskettes or the need to burn CD-ROMs. This new method ensures prompt delivery of registry data files for both the reporting facility and the ACR.

It's simple– Your IT staff would install an ADHS-approved FTP software that looks similar to Windows Explorer. The left half of the screen is your PC and the right half is the ACR FTP folder for your facility's files. You can drag and drop your registry files back and forth and the security



encryption is handled behind the scenes. There are over 87 licensed Arizona hospitals already using this secured FTP site for other ADHS programs. It is likely that someone in your facility is currently using the FTP site, so let's get the cancer registries onboard for this time saving transfer of data.

Start the sign up process for your cancer registry on this new and easy method of transferring cancer registry data. Please contact:

Keith Laubham, MS
(602) 542-7314
laubhak@azdhs.gov

In This Issue of Cancer Registry Review

ACR ANNOUNCEMENTS

New Member of the ACR Team

Daniel Garcia

Cancer Data Specialist

Daniel began working for the Arizona Cancer Registry as a Cancer Data Specialist in April, 2007. He is currently a graduate student in a Master's degree program in applied psychology, through Roosevelt University (Chicago). He has a Bachelor's of Science in psychology and spent about 5 years (1999-2004) working for the University of Arizona on two health-related research studies, one through the Psychology Department at the U of A and one through the Arizona Cancer Center, the latter of which led to his relocation from Tucson to Phoenix. Daniel spent 2005 & 2006 living in Japan and returned to Phoenix around Christmas of 2006. In May 2007, Daniel vacationed in Khon Kaen, Thailand which he enjoyed so much that he will be returning there on vacation in August! Besides trips to Asia, Daniel also likes hiking/exploring and exercising.

ACR Staff phone numbers and emails

Fax Number (602) 542-7362

Name	Title	Phone	Email
Georgia Armenta Yee	Office Chief	(602) 542-7308	Yeega@azdhs.gov
Katherine Ponce	Administrative Asst	(602) 542-7308	Poncek@azdhs.gov
Brenda Smith	Operations Manager	(602) 542-7357	Smithb@azdhs.gov
Fatima Benitez	Administrative Asst	(602) 542-7320	Benitef@azdhs.gov
Carmen Williams	Cancer Data Specialist	(602) 542-7338	Williaca@azdhs.gov
Rosie Caballero	Cancer Data Specialist	(602) 542-1152	Caballr@azdhs.gov
Daniel Garcia	Cancer Data Specialist	(602) 542-7338	Garciad@azdhs.gov
Zayin Javier	Cancer Data Specialist	(602) 542-7329	Javierz@azdhs.gov
Kara Locketti	Training Manager	(602) 542-7592	Locketk@azdhs.gov
Ardis Decker	Data Management Analyst	(602) 542-1125	Deckera@azdhs.gov
Kathleen Lynch	Programs/Project Specialist	(602) 542-7356	Lynchk@azdhs.gov
Veronica Vensor	Data Manager	(602) 542-7328	Vensorv@azdhs.gov
Keith Laubham	Senior Data Analyst	(602) 542-7314	Laubhak@azdhs.gov
Chris Newton	Epidemiologist	(602) 542-7324	Newtonc@azdhs.gov

ACKNOWLEDGEMENTS

Congratulations to:

- **Carmen Williams**, who recently passed the Registered Health Information Technician (RHIT) exam!
- **Chris Newton**, for recently completing the joint ADHS-ASU Public Health Epidemiology Certificate Program!
- **Gilbert Garcia**, who recently left us to pursue a new career opportunity.
- **Deb Boyce**, who is currently serving as Senior Treasurer at NCRA.

NAACCR Review of 2004 ACR Data

The North American Association of Central Cancer Registries (NAACCR) annually reviews state and provincial data to evaluate quality, completeness, and timeliness. NAACCR uses six evaluation measures. Each measure has gold and silver standard, awarded according to degree of compliance. A registry must meet gold or silver standards for all six criteria in order to be NAACCR certified. The ACR did not achieve certification status for year 2004 data (the most recent year for evaluation) because of lower than expected case ascertainment completeness. Arizona achieved the gold standard on four measures: Completeness of information recorded for the data items age at diagnosis, sex, race, state/province and county at diagnosis; duplicate case rate; percentage of cases passing EDITS; and timeliness. The ACR reached silver for the percentage of death certificate only cases. See the table on the next page for detailed results. Below is a brief explanation of each performance measure included in the table.

Completeness of Case Ascertainment

Completeness of case ascertainment is gauged using a two-step process. First, national incidence and mortality rates are applied to Arizona's mortality rate in order to estimate the expected incidence rate. This expected rate is then compared to the observed incidence rate. Arizona was not certified for year 2004 data due to the shortfall on this criterion.

Completeness of Information Recorded

The data items age at diagnosis, sex, race, and state and county of residence at diagnosis are critical to a state registry's central objective of generating incidence rates. Therefore, the percentage of unknown values for these items needs to be kept to a minimum.

Death Certificate Only (DCO) Cases

The percentage of death certificate only cases is one measure of data completeness. Death records with cancer listed as a cause of death are compared against the registry's database. ACR staff members attempt to collect information from doctors and hospitals on those cases that are not in the registry. If no further information can be gathered, the case is added to the registry as a DCO.

Duplicate Primary Cases

Because several facilities may be involved in a patient's care, the ACR often receives more than one abstract for the same case. One function of the Operations Section is to consolidate multiple reports into a single record. The presence of too many duplicates artificially inflates incidence rates by overcounting cases.

ACR ANNOUNCEMENTS

Arizona Cancer Registry

NAACCR
Registry Certification on Quality, Completeness & Timeliness of 2004 Data
Summary of Certification Measures

Registry Element	Gold Standard	Silver Standard	Actual Measure*	Measurement Error Allowed	Standard Achieved
1. Completeness of case ascertainment	95%	90%	87.7%	1.0%	Not achieved
2. Completeness of information recorded					
▸ Missing/unknown "age at diagnosis"	<=2%	<=3%	0.0%	-0.4%	Gold
▸ Missing/unknown "sex"	<=2%	<=3%	0.0%	-0.4%	Gold
▸ Missing/unknown "race"	<=3%	<=5%	2.0%	-0.4%	Gold
▸ Missing/unknown "State/Province & county"	<=2%	<=3%	0.0%	-0.4%	Gold
3. Death certificate only cases	<=3%	<=5%	3.5%	-0.4%	Silver
4. Duplicate primary cases	<=1 per 1000	<=2 per 1000	0.3 per 1000	-0.4 per 1000	Gold
5. Passing EDITS	100%	97%	100.0%	Not applicable	Gold
6. Timeliness	Data submitted within 23 months of close of accession year.				Gold
				Certification Status	Not achieved

* Measures are truncated to one decimal place. The measure for completeness of case ascertainment includes an adjustment for unresolved duplicates.

CoC New Program Kit

The CoC recently distributed a new program kit targeting cancer program physicians, administrators, and registrars interested in College approval of their cancer programs. The kit includes flyers that provide an overview of the CoC and its specific programs, outline the benefits of having a CoC-approved program, and list the general steps that are necessary in order to obtain CoC approval. The kit also contains a promotional CD discussing the benefits of CoC approval and a complimentary copy of Cancer Program Standards 2004, Revised Edition. The ACR will loan the kit to interested facilities. If you would like to borrow it, please contact Kara Locketti at (602) 542-7592.

Caregiver Study Seeks Participants

The National Cancer Institute (NCI) and the George Washington School of Public Health would like to talk to women who are providing care for a family member or friend with cancer. This study seeks to learn more about caregiving experiences and how caregivers have coped. If you are:

- Female
- Between the ages of 31 and 80
- Currently providing care for someone over the age of 20 with cancer, OR you provided care for someone over the age of 20 with cancer at end-of-life within the last year,

Please call toll-free 1-888-249-0029 (Monday to Friday, 9am-5pm EDT)

An interviewer will ask questions about yourself and your caregiving experience. Participating in this study involves a total of 15 to 20 minutes by phone. Eligible participants may be asked to provide additional information about their caregiving experiences in a follow-up telephone interview that will last approximately 45-60 minutes.

Message from NCRA

Vivian Ehrlich, CTR

As the newly elected Advocacy, Technical & Practice Director (ATPD) for the West I have the honor of being your representative to the NCRA Board for the next two years. I am still in the learning mode as to all my responsibilities, but I do know that one of my major jobs is to stay in touch with you. I would like to say hello and introduce myself to you. My name is Vivian Ehrlich, and I live and work in Colorado Springs, CO. I have been a CTR since 1991 and just two years ago I finally finished my college degree that I started in 1963! So, I can tell you that it is never too late to go to college. It has made a tremendous difference in my work environment.

I have spent the last two years on the NCRA board of directors, serving as Jr. and then Sr. treasurer. These past two years have been an amazing learning experience. Not only have I learned a lot about NCRA, but I have met many amazing people who make our Association work as well as it does.

I hope you will feel free to get in touch with me, so here is my contact information:
I usually check my home email 3-5 times a week - vmehrlich@yahoo.com and if you want to chat, just write me and I will send you my phone number or send me your number and I will call you! I would recommend that you use the home email, BUT if you need to reach me during the day, my work email is vivian.ehrlich@memorialhealthsystem.com.

Can you believe it; we had more than 1500 people at the Las Vegas convention! That is a record for NCRA. The board of directors met just before the Education Conference. The board will continue its work on the Strategic Management Plan that includes six main strategies: education/professional development, credentialing, recruitment and retention, member and customer services, advocacy and administration and finance.

NCRA can only be as good as the members help it to be. Your feedback is vital to the Association. If you have questions, you can go the NCRA website and submit them to Raise Your Voice—under the Advocacy button.

One thing that I would like for each of you to consider is to get actively involved with NCRA. Before we know it, the time for nominations will be here. If you have never been involved, volunteer to serve on a committee—the first step I took was to run for the nomination committee. If you have a special interest, put your name forward to chair a committee. And if you know someone who would be interested in serving NCRA, ask them to volunteer. I will look forward to hearing from you, even if just to say Hi!

REGISTRAR EDUCATION

MP/H Rules

Resources for Further Training and Support

Want to Review Multiple Primary & Histology Rules Lessons?

SEER "Breeze Sessions"

A series of web-based broadcasts covering multiple primary and histology coding rules topics are available through SEER's web site at http://www.seer.cancer.gov/tools/mphrules/training.html . Two options are available– basic training ("The Fundamentals") and more advanced topics ("Beyond the Basics"). A Macromedia Flash Player is needed to view the presentations, but the vast majority of Internet browsers will have this feature. Each presentation, with the exception of the lung information in "Beyond the Basics," consists of a slide show plus audio and a session transcript. Users may pause the presentation, or move back and forth through it as desired.

These "Breeze sessions" are free and eligible for NCRA CE credits. There are two sessions for each topic; a lecture-style presentation followed by a practicum. The practicum exercises are the same as those included in the workshops presented by the ACR, but the Breeze sessions cover them in greater depth.

SEER's Training Web Site

A module covering the new rules is available through SEER's training web site (http://training.seer.cancer.gov/). If you complete the module by September 6, 2007, you are eligible to obtain 4 NCRA-approved CEU's. The module provides a broad overview, rather than the in-depth coverage of the Breeze sessions and ACR workshop. One feature that you may find particularly helpful is the "walk-through" for two practice cases that lists things you must consider during each step of the decision-making process. A second module consisting of site-specific exercises will be available in the near future.

Treatment coding exercises have been added to several of the site-specific exercises- breast, prostate, lung and colorectum. These are particularly helpful for beginning registrars.

NAACCR-Sponsored Webinar

NAACCR held a webinar introducing the new multiple primary and histology coding rules on April 19th. This webinar was targeted to central registries, but hospital-based registrars may access it. If you would like to view the presentation, just make sure that it is in the name of the AZ subscription so you can get it for the $30 rate instead of $180.

You may do this by going to NAACCR's home page, http://www.naaccr.org and clicking on the link "Purchase a recorded version of NAACCR webinar sessions." This will bring you to a page called "Cancer Registry Webinars." Click on the link "2006-2007 Central Cancer Registry Webinar Series," located on the left side of the page. Click the subscriber's rate icon when you purchase the webinar.

Collaborative Staging Resources

Need help with Collaborative Staging, or just want a refresher course? The Online Education Center, a joint project of the CoC and the AJCC, offers free webcasts on Collaborative Staging for breast, colorectal, lung, and prostate cancer. Sessions can be viewed at your own pace and you may view them as often as you'd like. It is recommended that you have the most recent versions of Macromedia Flash and Adobe Reader installed. CTR's are eligible for 1 CE per session.

To access the webcasts, go to http://www.facs.org/cancer/webcast/index.html and register. Since the information is produced in partnership with a governmental organization (SEER), there is no fee. The College offers a variety of other fee-based presentations, most of which deal with CoC program accreditation issues.

Multiple Primary & Histology Coding Rules

Selected Questions from the Winter, 2007 edition of "The NAACCR Narrative"

Q: The list of ambiguous terms that can be used to describe a more specific histology does not include a corresponding "negative" list of terms that cannot be used to describe a more specific histology. Does this just apply to the multiple primary and histology coding rules?

A: Yes. The list of ambiguous terms documented in the 2007 Multiple Primary and Histology Coding Manual is only used for multiple primaries and histology coding. There are different lists of ambiguous terms for casefinding and staging.

Q: The rules state that the histology should be coded using information from the final pathologic diagnosis. Can we use information from 'comments' on the path report?

A: If comments are added to further clarify the final diagnosis, you may use that information when coding the histology.

Q: The rules state that the histology should be coded using information from the final pathologic diagnosis, but that the rules are not to be used to code grade/differentiation. Please clarify.

A: At the 2007 multiple primary and histology coding train the trainer session, it was emphasized that when coding the histology, only information from the final pathologic diagnosis should be used. It was also stated that those rules do not apply to coding the grade/ differentiation.

Q: If the site-specific timing rule states that tumors more than 60 days apart are multiple primaries, is 60 days the same as 2 months?

A: No, we can't assume that 60 days and 2 months are the same.

This multiple primary rules question was recently posed to ACR staff:

Bladder New Primary vs. Recurrence

Patient had a papillary transitional cell carcinoma of the bladder diagnosed elsewhere in 2003. Patient was admitted to facility in 2007 with a non-invasive papillary transitional cell carcinoma of the bladder. Patient had had several recurrences in the interim between 2003 and 2007. Is this a recurrence or a new primary?

(Per SEER, correspondence with trainers) A number of participants have gotten the impression that bladder tumors occurring more than 3 years apart are to be accessioned as separate primaries. Rules are to be used in hierarchical order.

Rule M5 If a bladder tumor is non-invasive or in-situ and recurs as an invasive, it is a new primary.
Rule M6 All other papillary/transitional cell bladder tumors that recur are a single primary (recurrence).

This means that all subsequent occurrences of papillary/ tcc bladder tumors are the same primary (recurrences). You never reach rule M7 (the three year rule) for papillary/tcc tumors of the bladder.

Patient Identification

Race

The ACR has found that the patient race data items for Asian/Pacific Island patients tend to be coded using the non-specific code "96" (Other Asian, including Asian, NOS and Oriental, NOS). Please remind your physicians to mention specific information on these patients in their reports; possible opportunities to bring this up include cancer committee and tumor board meetings. The specific Asian/Pacific Islander for Race 1 through Race 5 encompass 04 through 32, 96 and 97.

Cancer Identification

Thanks to our reporting facilities in providing guidance in coding situations.

Primary Payer at Diagnosis I & R # 22653
We are a non-military facility who at times treats VA patients and accepts reimbursement based on their VA or military insurance. Our coding manual's description for primary payer states that to use the VA and military codes the patient is "treated in a VA or military facility." What should a non-military facility code for primary payer?

Code 65 Tricare according to the definition, is a program providing civilian-sector hospital services to military dependents, retirees, and their dependents.

CODING CORNER

First Course of Treatment

(RMCDS Users Only)
Coding Free-Standing Radiation Oncology Centers and Surgery Centers Identification Numbers in First Course Treatment Screens
Code the AZ facility ID number if one has been assigned by the ACR and is on the list provided by the ACR.

Code "550" if the facility is a physician's office within Arizona.

Code 999 if the facility is:

- Unknown OR
- A radiation oncology center with no known ID number OR
- A surgery center with no known ID number OR
- Out-of-state

General Info About NPI's

The information below is taken from a power point presentation, "National Provider Identifier: General Information," which is available through the CMS Medicare Learning Network (MLN). If you wish to access the full presentation, go to http://www.cms.hhs.gov/NationalProvIdentStand/ and click on the "Educational Resources" link on the left side of the page. Towards the bottom of the page there is a list of available downloads. Select "NPI Training Package." Select module 1, "General Information."

The Administrative Simplification provisions of HIPAA include the adoption and use of the National Provider Identifier (NPI for short) by health care providers. The NPI is a ten-digit number assigned by the Centers for Medicare & Medicaid Services through a subcontractor. A primary goal of NPI adoption was to transmit health care information more efficiently. Prior to the adoption of NPI's, providers would typically have different identification numbers for each of the health plans with which they conducted business.

All HIPAA covered health care providers, whether they are individuals (such as physicians, nurses, dentists, chiropractors, physical therapists, or pharmacists) or organizations (such as hospitals, home health agencies, clinics, nursing homes, residential treatment centers, laboratories, ambulance companies, group practices, suppliers of durable medical equipment, pharmacies, etc.) must obtain a NPI to identify themselves in HIPAA standard transactions. Standard transactions are Electronic Data Interchange (EDI) transactions that transmit health care data in standard formats that were adopted by HHS by regulation. Claims and encounter information, payment and remittance advice, and claims status and inquiry are several of the standard transactions. A provider's NPI will not change. The NPI remains with the provider regardless of job or location changes, except in certain situations such as when a provider's NPI is used fraudulently and the provider requests another NPI, or when a provider ceases to exist.

The deadline for large health plans to comply with the NPI requirement was May 23, 2007. Small health plans have until May 23, 2008.

A Tax Identification Number (TIN) that is used to identify a health care provider as a health care provider is replaced by the NPI.

ACR-Specific Information–NPI

The NPI-related fields that the ACR requires abstractors to collect and transmit correspond to provider identification fields that are already required as part of the data set. For instance, the existing data item "Following Physician" (NAACCR Item # 2470) is required, so its NPI equivalent, "NPI—Following Physician" (NAACCR Item # 2475) is also required. On the other hand, "Physician #3" (NAACCR Item # 2490) is not required, so its NPI equivalent "NPI—Physician # 3 (NAACCR Item # 2495) is not required either. The ACR will continue to use license numbers until further notice to identify physicians, in addition to using the required NPI's.

The NPI-Archive FIN (NAACCR Item #3105) is a number assigned, like the other NPI numbers, by the Centers for Medicare & Medicaid Services

(Continued on next page)

(Continued from previous page)

(CMS). You will need to find this number in order to enter it into your system. If you are a RMCDS user, once you find out this number it can be set up to autocode so that you would not need to enter it on every case. However, each vendor differs in this regard.

CMS will have an online query-able database for looking up NPI numbers, but it is currently not available. The ACR will notify registrars when it comes "on-line." Your facility's billing department should be able to furnish your hospital's NPI number to you.

Reporting Schedules

Brenda Smith, CTR Operations Manager

In order to verify hospital reporting, the ACR is requesting additional information. Please send an accounting of the month/year you are currently abstracting to Brenda Smith with your next data submission. At this point, facilities should be reporting from the first half of 2007. Thank you!

Even Months	Odd Months
501 Cigna Healthplan of AZ	510 Arizona Medical Clinic
502 Arizona Oncology Associates	513 Arizona Diagnostic & Surgical Center
507 Arizona Oncology Services	
601 Banner Desert Medical Center	603 University Medical Center
602 Tucson Medical Center	604 Phoenix Memorial Hospital
606 Banner Mesa Medical Center	611 Yuma Regional Medical Center
607 Scottsdale Healthcare Osborn	623 Maricopa Medical Center
608 Scottsdale Healthcare Shea	624 Flagstaff Medical Center
609 Chandler Regional Hospital	627 Banner Good Samaritan Medical Center
610 Carondelet St. Joseph's Hospital	629 Maryvale Hospital
612 Banner Baywood Medical Center	630 Phoenix Children's Hospital
613 Phoenix Baptist Medical Center	631 St. Joseph's Hospital– Phoenix
616 St. Luke's Hospital– Tempe	634 Paradise Valley Hospital
617 St. Luke's Medical Center– Phoenix	636 Mesa General Hospital
619 St. Mary's Hospital	637 Casa Grande Regional Medical Center
621 Sierra Vista Community Hospital	644 Yavapai Regional Medical Center
625 Boswell Memorial Hospital	648 Havasu Regional Medical Center
628 John C. Lincoln– North Mountain	655 Kindred Hospital– Phoenix
632 Banner Thunderbird Medical Center	658 Kindred Hospital– Tucson
639 University Physicians' Healthcare at Kino Campus	667 John C. Lincoln– Deer Valley
645 Verde Valley Medical Center	669 Northwest Medical Center
647 Western Arizona Regional Medical Center	673 Kingman Regional Medical Center
652 Arrowhead Community	676 Mt. Graham Community Hospital
670 Del E. Webb Memorial Hospital	691 Lutheran Heart
674 Payson Regional Medical Center	692 Kindred Hospital– Scottsdale
677 Navapache Hospital	696 Mayo Clinic
689 Arizona Heart Hospital	
690 Tucson Heart Hospital	
693 West Valley Hospital	
694 Banner Estrella Medical Center	

Esophageal Cancer In Arizona 1995 -2003

Esophageal Cancer is one of the digestive system malignancies with a poor survival. The five year age-adjusted survival rate for all cases in the National Institute of Health's Surveillance Epidemiology and End Results Program (SEER) database diagnosed between 1998 and 2002 is 15.9%[1] The American Cancer Society estimates that there will be 15,560 esophageal cancer diagnoses in 2007 and 13,949 deaths.[2]

Anatomy

The esophagus is a muscular channel that carries solids and liquids from the mouth to the stomach. In adults, it measures approximately 10 to 13 inches in length and three-fourths of an inch in width at its narrowest point. Esophageal cancer grows outward from the inner layer, closest to the contents traveling through it. The innermost layer, the mucosa, is lined with squamous cells in the epithelium that lay on top of the lamina propria, which is a thin layer of connective tissue. The submucosa is the next deepest layer and contains mucus-secreting cells in some parts. The third layer, the muscularis propria, is a band-like muscle that moves solids through the esophagus to the stomach. The outermost layer is the adventitia, which consists of connective tissue. The distal end of the esophagus has a sphincter (gastroesophageal junction) that separates it from the stomach.

Risk Factors

Lifestyle risk factors for esophageal cancer include heavy alcohol use, tobacco use, chronic acid reflux, a diet low in fruits and vegetables, and obesity (i.e., a body mass index greater than 25). Demographic risk factors include age (being between 55 and 70), sex (males are almost four times more likely to develop esophageal cancer than females), and race (being African American).[3, 4]

Esophageal Cancer in Arizona, 1995-2003 Demographic Profile

From 1995 through 2003, 1,909 esophageal cancer cases were diagnosed in Arizona residents. More than three-quarters (78.6%) of cases were male (See Table 1). Most cases were White race (95%) and non-Hispanic ethnicity (92%)(See Tables 2 and 3 respectively).

Site and Histology Profile

Slightly more than half (51%) of cases had the primary tumor in the lower third of esophagus (ICD-O-3 site codes (C15.5 and C15.2). This analysis did not include carcinomas arising in the gastroesophageal junction (site code C16.0). The two most common histologies for esophageal cancer are squamous cell carcinoma and adenocarcinoma. Seventy-three percent (73%) of cases diagnosed in this time frame with tumors in the lower third of the organ were adenocarcinomas.[5] Reflux or gastroesophageal reflux disease (GERD) can damage the esophageal lining (most often in the lower third of the organ) when strong stomach acid spills into the esophagus over a long period of time through an improperly closing gastroesophageal junction sphincter. GERD causes abnormal glandular cells to replace the squamous cells that typically line the esophagus, resulting in the condition Barrett esophagus. Individuals with this condition are 30 to 100 times more likely to develop esophageal cancer, particularly adenocarcinoma.

Cancers in the upper two-thirds of the esophagus are most often associated with risk factors such as heavy alcohol consumption and tobacco use that cause inflammation to the squamous cell lining and result in squamous cell carcinoma.[6] Approximately one- quarter (23%) of cases in the ACR database had a primary tumor in the upper third or middle third of the esophagus (inclusive of ICD-O-3 site codes C15.0, C15.1, C15.3, and C15.4). More than two-thirds (295 of 433,or 68%) of these cases had a squamous cell histology (See Table 4).

Changes in Incidence, 1995-2003

Incidence rates of esophageal cancer for both sexes combined in Arizona has jumped around between 1995 and 2003, with the rate staying close the SEER rate. The age-adjusted incidence rate was 3.9 per 100,000 in 1995, dropping slightly to 3.8 per 100,000 persons in 1999 and 2000. The rate then increased to 4.6 per 100,000 in 2003.[7] The national rate, as represented in the SEER data, was 4.4 in 1995, increasing to 4.7 and 4.5 per 100,000 persons in 1999 and 2000 respectively, and declining to 4.3 per 100, 000 in 2003.[8] The SEER registries' rate did not significantly differ from Arizona's (See Graph 1).

Survival

Survival of Arizona residents with esophageal cancer was poor, even for those cases with a localized stage at diagnosis. The 5 year age-adjusted survival rate was 9.0% for all stages. Cases with a localized stage had a 5 year survival rate of 24.9%, while cases diagnosed with late stage disease had a 5 year survival of only 2.8% (See Graph 2).[9]

(Continued on next page)

TABLE 1
Esophagus Cancer in Arizona Residents
For Diagnosis Years 1995 - 2003
Patient Sex by Diagnosis Year

	Male		Female		Total
Diagnosis Year	Count	Pct of Dx Yr	Count	Pct of Dx Yr	Count by Yr
1995	137	77.4	40	22.6	177
1996	149	76.4	46	23.6	195
1997	159	81.1	37	18.9	196
1998	160	76.2	50	23.8	210
1999	153	77.3	45	22.7	198
2000	154	75.1	51	24.9	205
2001	180	76.9	54	23.1	234
2002	182	79.8	46	20.2	228
2003	227	85.3	39	14.7	266
Total	1501	78.6	408	21.4	1909

TABLE 2
Esophagus Cancer in Arizona Residents
For Diagnosis Years 1995 - 2003
Race

	Count	Percent	Valid Percent
White	1820	95.3	95.3
African American	49	2.6	2.6
Native American	31	1.6	1.6
Asian	6	.3	.3
Unknown	3	.2	.2
Total	1909	100.0	100.0

(Continued on next page)

TABLE 3
Esophagus Cancer in Arizona Residents
For Diagnosis Years 1995 - 2003
Ethnicity

	Count	Percent	Valid Percent
Non Hispanic	1787	93.6	93.6
Mexican	94	4.9	4.9
All Other Spanish	28	1.5	1.5
Total	1909	100.0	100.0

TABLE 4
Esophagus Cancer in Arizona Residents
For Diagnosis Years 1995 - 2003
Esophagus Subsite by Histology Group

			Histology Group									
Esophagus Subsite			Other Histologies		Neoplasm & Carcinoma NOS		Squamous Cell		Adenocarcinoma		Total	
Esophagus Subsite	Subsite count	Subsite %	Count	% of Subsite	Count	% of Subsite	Count	% of Subsite	Count	% of Subsite	Count	% of Subsite
Upper Third	137	7	1	0.7	6	4.4	113	82.5	17	12.4	137	100
Middle Third	296	16	4	1.3	28	9.5	182	61.5	82	27.7	296	100
Lower Third	971	51	31	3.2	64	6.6	164	16.9	712	73.3	971	100
Lesion Overlap of Subsites	122	6	3	2.4	9	7.4	46	37.7	64	52.5	122	100
Esophagus NOS	383	20	4	1	129	33.7	96	25.1	154	40.2	383	100
Total	1909	100	43		236		601		1029		1909	

[1] From Data of Surveillance Research Program, National Cancer Institute SEER Stat software(www.seer.cancer.gov) SEERstat database: Incidence – SEER 17 Regs Limited Use; Nov 2006 Sub (1973-2004varying) – Linked to County Attributes – Total US, 1969-2004 Counties, National Cancer Institute, DCCPS Surveillance Program, Cancer Statistics Branch, released April 2007, based on November 2006 submission.

[2] Cancer Facts and Figures – 2007, American Cancer Society (ACS), Atlanta, Georgia, 2007. Retrieved 6/15/07 from http://www.cancer.org/docroot/STT/content/STT_1x_Cancer_Facts__Figures_2007.asp.

[3] Esophageal cancer . Mayo Clinic.com . Mayo Staff, 5/11/2007. Retrieved 6/11/07 from http://www.mayoclinic.com/health/esophageal-cancer/.

[4] Detailed Guide: Esophagus Cancer, American Cancer Society; updated 8/4/2006. Retrieved 6/15/2006 from http://www.cancer.org/docroot/CRI/CRI_2_1x.asp?rnav=criov&dt=12.

[5] Arizona Cancer Registry Data, 6/8/2007.

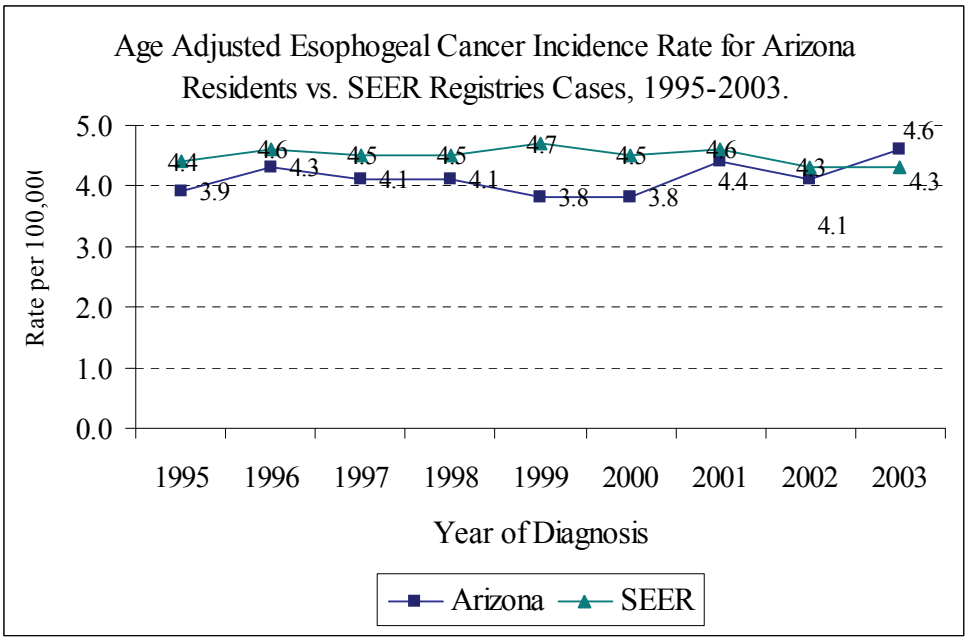
[6] Esophageal cancer . Mayo Clinic.com

[7] Arizona Cancer Registry Data, 6/8/2007.

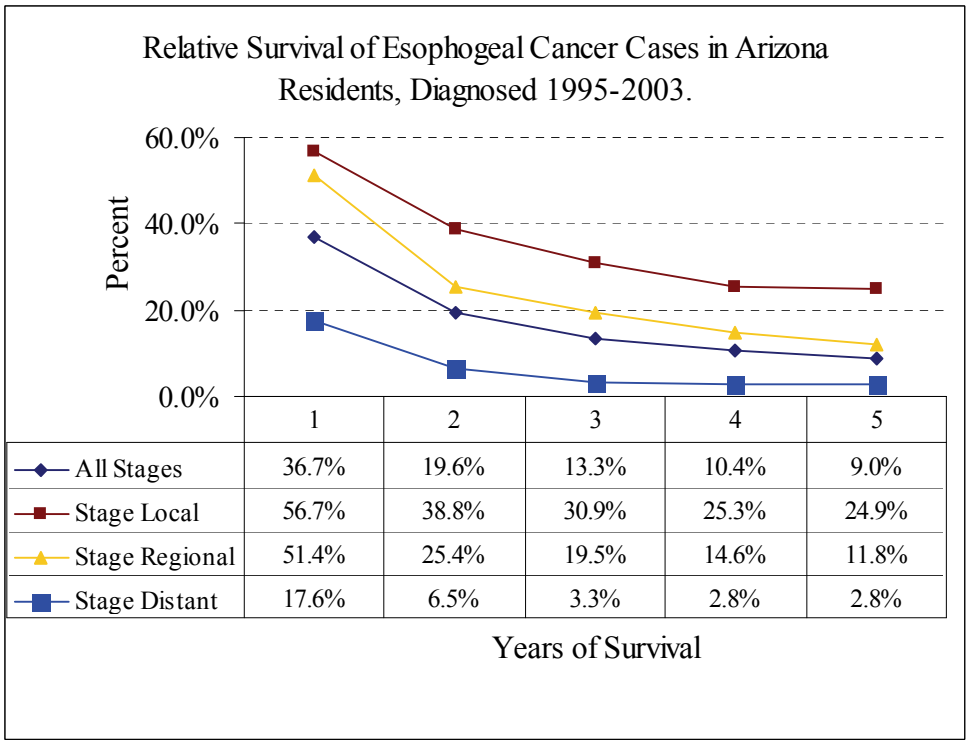
[8] From Data of Surveillance Research Program, SEER Stat software.

[9] Arizona Cancer Registry Data, 6/8/2007.

Graph 1



Graph 2



	1	2	3	4	5
All Stages	36.7%	19.6%	13.3%	10.4%	9.0%
Stage Local	56.7%	38.8%	30.9%	25.3%	24.9%
Stage Regional	51.4%	25.4%	19.5%	14.6%	11.8%
Stage Distant	17.6%	6.5%	3.3%	2.8%	2.8%

Diagnosis Year

DATA SECTION

Your Data Hard at Work!

The NCRA issued the following press release on 1/29/07

Cancer Registrars Played Central Role in Recently Released 2007 Cancer Statistics

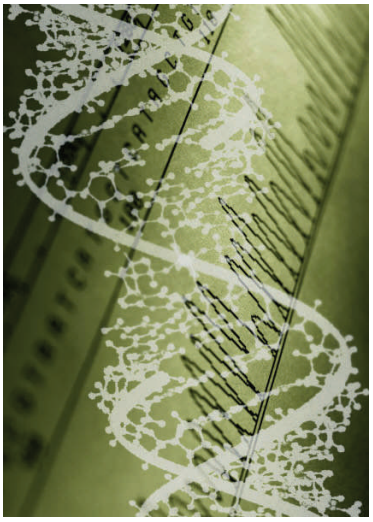
Registry Data Key to Cancer Research, Prevention and Treatment

Cancer registrars working in communities nationwide collected the data at the heart of "Cancer Statistics, 2007," a study released this month by the American Cancer Society. The report estimates the number of new cancer cases and deaths expected in the U.S. in 2007 and includes valuable findings on cancer incidence, mortality and survival.

"This critical research is built on the foundation of the cancer data compiled by cancer registrars," said Marilyn Hansen, CTR, president of the National Association of Cancer Registrars (NCRA). "The thoroughness and integrity of the information provided by the nation's cancer registries allows researchers to conduct and share their analyses with confidence." Cancer registrars are data management experts working in cancer treatment and research settings who find, interpret and record a wide range of demographic and medical information on people with cancer. The information is submitted to state and national cancer registries for use in research, treatment and prevention initiatives.

Key results in "Cancer Statistics, 2007" were based on data from two national registries—the Surveillance, Epidemiology, and End Results (SEER) program of the National Cancer Institute and the Centers for Disease Control and Prevention's National Program of Cancer Registries (NPCR).

"The vital information presented in this report highlights the valuable role that cancer registrars play in the war on cancer," said Hansen. "For example, understanding trends in cancer diagnoses helps us to see if prevention initiatives are working and to determine how to best target future efforts."



Bureau of Public Health Statistics
Arizona Cancer Registry
150 N 18th Ave, Ste. 550
Phoenix, AZ 85007-3248

Phone: 602-542-7320
Fax: 602-542-7362

We're on the web!
www.azdhs.gov

Cancer Registry Review

This document is published by the Arizona Department of Health Services, Bureau of Public Health Statistics, Office of Health Registries, Arizona Cancer Registry. It is intended to provide information and education for those who read it.

NOTICE—The Arizona Department of Health Services does not discriminate on the basis of disability in the administration of its programs and services as prescribed by Title II of the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973.

If you need this publication in an alternative format, please contact the Arizona Cancer Registry at (602)542-7320.

"Leadership for a Healthy Arizona"